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IN THE CLAIMS

Please amend the claims as follows. This listing replaces all prior versions.

1. (Currently amended) An isolated polynucleotide encoding a full length *ducreyi* serum resistance A (DsrA) protein, the polynucleotide selected from the group consisting of:
 - (a) DNA having the nucleotide sequence of SEQ ID NO:1;
 - (b) DNA having the nucleotide sequence selected from the group consisting of SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15, and SEQ ID NO:17;
 - (c) ~~a polynucleotide that hybridizes~~ polynucleotides that hybridize to DNA of (a) or (b) above under stringent conditions ~~as exemplified~~ represented by a wash stringency of 50% Formamide with 5x Denhardt's solution, 0.5% SDS and 1x SSPE at 42°C and which ~~encodes~~ encodes a full length DsrA; and
 - (d) ~~a polynucleotide that differs~~ polynucleotides that differ from the DNA of (a) or (b) or (c) above due to the degeneracy of the genetic code and that ~~encodes~~ encodes a full length DsrA.
2. (Canceled).
3. (Previously presented) An isolated polynucleotide that encodes DsrA, wherein the DsrA has the amino acid sequence of SEQ ID NO:2.
4. (Canceled).
5. (Currently amended) The isolated polynucleotide according to ~~Claim 1~~ Claim 1 which is ~~at~~ the DNA having the nucleotide sequence of SEQ ID NO:1.
- 6-7. (Canceled).

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8. (Previously presented) An expression vector comprising the polynucleotide according to Claim 1.
9. (Currently amended) ~~A~~An isolated cell containing the expression vector of Claim 8.
- 10-13. (Canceled).
14. (Currently amended) An isolated antisense oligonucleotide complementary to the polynucleotide of Claim 1 and having a length ~~sufficient to hybridize thereto under physiological conditions~~ of 20 to 50 nucleotides.
15. (Previously presented) An isolated DNA encoding the antisense oligonucleotide of Claim 14.
16. (Previously presented) An expression vector comprising the antisense oligonucleotide of Claim 14.
17. (Currently amended) A method for producing a protein comprising the amino acid sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, and SEQ ID NO:18, or ~~a fragment~~ an antigenic determinant thereof, comprising:
 - (a) culturing a host cell containing an expression vector containing at least a fragment of a polynucleotide sequence greater than 60 nucleotides in length and encoding DsrA under conditions suitable for the expression of the protein; and
 - (b) recovering the protein from the host cell culture.
18. (Currently amended) A method for detecting a polynucleotide which encodes DsrA in a biological sample, comprising:

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(a) contacting the complete complement of the polynucleotide sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15, and SEQ ID NO:17 with the biological sample, thereby forming a hybridization complex~~under conditions whereby a nucleic acid hybridization complex can form if a polynucleotide which encodes DsrA is present in the biological sample~~; and

(b) detecting the hybridization complex, whereby the presence of the hybridization complex detects the presence of the polynucleotide which encodes the DsrA in the biological sample.

19-22. (Canceled).

23. (Previously presented) A composition comprising the polynucleotide of Claim 1 in a pharmaceutically acceptable carrier.

24. (Previously presented) The composition according to Claim 23 wherein the polynucleotide has the nucleotide sequence of SEQ ID NO:1.

25. (Previously presented) A composition comprising the expression vector of Claim 8 in a pharmaceutically acceptable carrier.

26-28. (Canceled).